

SITE NOTIFIED TO THE SECRETARY OF STATE ON 27 MAY 1986

COUNTY: DERBYSHIRE

SITE NAME: TICKNALL QUARRIES

DISTRICT: SOUTH DERBYSHIRE

SITE REF: 15 WND

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981.

Local Planning Authority: DERBYSHIRE COUNTY COUNCIL, South Derbyshire District Council

National Grid Reference: SK 358238

Area: 30.1 (ha.) 74.4 (ac.)

Ordnance Survey Sheet 1:50,000: 128

1:10,000: SK 32 SE

Date Notified (Under 1949 Act): 1963

Date of Last Revision: 1981

Date Notified (Under 1981 Act): 1986

Date of Last Revision: –

Other Information:

Site boundary alteration (extension & reduction).

Description and Reasons for Notification:

The site consists of a number of disused quarries in an outlier of Carboniferous Limestone in the Trent Valley. The site has been selected for a number of adjacent habitats which include semi-natural ash woodland, limestone grassland, open water and small flushes. The area is of particular interest as it contrasts with the limestones of the Peak District. The area is also important for its Dinantian palaeontology.

Biology

The semi-natural woodland consists mainly of ash *Fraxinus excelsior* but there are some areas of silver birch *Betula pendula* with a few pedunculate oaks *Quercus robur*. The most remarkable contrast with the Peak District limestone is the abundance of traveller's-joy *Clematis vitalba* which clothes many of the medium sized trees. Dog's mercury *Mercurialis perennis* is locally dominant and with other woodland species suggests that the site was wooded before quarrying took place and that some areas may have remained undisturbed. Some of the rock faces and spoil heaps are very densely covered in hart's-tongue fern *Phyllitis scolopendrium*.

Unimproved limestone grassland is now rare in the Trent Valley. Here the grasslands are dominated by false brome *Brachypodium sylvaticum* with patches of glaucous sedge *Carex flacca* and carnation sedge *C. panicea*. There are a number of less common but typical limestone plants such as autumn gentian *Gentianella amarella*, common centaury *Centaurium erythraea*, adder's tongue *Ophioglossum vulgatum* and bee orchid *Ophrys apifera*. Some areas are dominated by lichens, particularly *Cladonia* species.

The open water has a rich fauna and flora and differs from the other open waters in the Trent Valley as it is strongly calcareous. It has been the subject of research, particularly of the algae. Some of the pools are fed by surface springs and there is one notable flush with common cottongrass *Eriophorum angustifolium* and corn spike-rush *Eleocharis palustris*.

Geology

The rocks seen in Ticknall Quarries were laid down in a warm shallow sea some 330 million years ago, during the Dinantian Stage of the Carboniferous Period. The Ticknall limestone, which forms part of the Carboniferous limestone, is much thinner here than equivalent sequences in other areas, and is famous for its shelly fossils. The quarries are the single most important late Dinantian locality in the Midlands, since the site provides evidence for recognising the existence of a large land mass, known as St George's Land, which extended across the Midlands and Wales during Carboniferous times.